



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

The Lane Construction Corporation
Penobscot County
Hermon, Maine
A-590-71-H-R (SM)

Departmental
Findings of Fact and Order
Air Emission License

After review of the air emission license renewal application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. The Lane Construction Corporation (Lane), located in Hermon, Maine has applied to renew their Air Emission License, permitting the operation of their crushed stone and gravel facility.
2. Lane has also requested to update their license with the addition of two rock crushers and two diesel generators.
3. The equipment addressed in this license is based at Odlin Road, Hermon, ME.

B. Emission Equipment

Rock Crushers

<u>Designation</u>	<u>Process Rate (TPH)</u>	<u>Date of Manufacture</u>	<u>Control Device</u>	<u>Performance Test</u>
PRI3042CR	400	1987	Spray Nozzles	06/24/2002
TER54FH	200	1992	Spray Nozzles	05/17/2000
PRIKLE TKJAW	330	2009 est.	Spray Nozzles	New
TERSANH440	330	2009 est.	Spray Nozzles	New

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

Diesel Units

<u>Source ID</u>	<u>Max. Capacity MMBtu/hr</u>	<u>Max. Firing Rate - Gal/hr</u>	<u>Fuel Type</u>
Diesel 3406B	2.7	21	Diesel, 0.05% S
Diesel FT6203	1.2	8.9	Diesel, 0.05% S, 0.0015% S
Diesel KLETKJAW	2.1	15.3	Diesel, 0.05% S, 0.0015% S
Genset 3412	5.32	38	Diesel, 0.05% S

C. Application Classification

The application for Lane includes the licensing of increased emissions and the installation of new, therefore the license is considered to be a renewal and amendment of current licensed emissions units per *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005).

With the fuel limit on the generators, Lane is licensed below the major source thresholds and is considered a synthetic minor.

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Levels" as defined in the Department's regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Sig. Level</u>
PM	0.4	0.7	0.3	100
PM ₁₀	0.4	0.7	0.3	100
SO ₂	0.2	0.3	0.1	100
NO _x	15.2	24.2	9.0	100
CO	3.3	5.2	1.9	100
VOC	1.2	1.9	0.7	50

This modification is determined to be a minor modification and has been processed as such.

II. BEST PRACTICAL TREATMENT

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Rock Crushers

The PRI3042CR, TER54FH, PRIKLE TKJAW and TERSANH440 rock crushers are portable units which were manufactured in 1987, 1992, 2009 and 2009 with rated capacities of 400, 200, 330 and 330 tons per hour, respectively. These rock crushers are therefore subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons per hour for portable plants and greater than 25 tons per hour for non-portable plants.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, Lane shall maintain water sprays on the rock crushers and operate as needed to control visible emissions. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a six (6) minute block average basis.

C. Diesel Generators

The Diesel 3406B generator was manufactured and installed in 1989, and has a maximum input capacity of 2.7 MMBtu/hr; the Genset 3412 was manufactured in 1978 and installed in 2005, and has an input capacity of 5.32 MMBtu/hr. Therefore these generators are not subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

The Diesel FT6203 is an EPA Tier 4 generator, was manufactured in 2008 and installed in 2010, and has a maximum input capacity of 8.9 MMBtu/hr; the Diesel KLETKJAW, an EPA Tier 3 generator, was manufactured in 2009 and installed in 2010 and has a maximum input capacity of 2.1 MMBtu/hr. Therefore these generators are subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

A summary of the BPT/BACT analysis for the generators is the following:

1. The total fuel use for the Diesel 3406B and Genset 3412 generators shall not exceed 40,000 gallons per calendar year of diesel fuel with a maximum sulfur content not to exceed 0.05% by weight.
2. Total fuel use for the Diesel FT6203 and the Diesel KLETKJAW generator shall not exceed 40,000 gallons per calendar year of diesel fuel with a maximum sulfur content not to exceed 0.05% by weight; effective 1 October 2010, the FT6203 and KLETKJAW generators shall fire only diesel fuel with a maximum sulfur content not to exceed 0.0015% by weight.
3. *Low Sulfur Fuel*, 06-096 CMR 106 (last amended July 4, 1999) regulates fuel sulfur content, however in this case a BPT/BACT analysis for SO₂ determined a more stringent limit of 0.05% was appropriate and shall be used.
4. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits. The PM₁₀ limits are derived from the PM limits.
5. NO_x, CO, and VOC emission limits are based upon AP-42 data dated 10/96.
6. Visible emissions from the generators shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period.

D. Stock Piles and Roadways

Visible emissions from a fugitive emission source shall not exceed 20% opacity, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

E. General Process Emissions

Visible emissions from any other general process sources (including conveyor belts, transfer points, bucket elevators, bagging operations, etc.) shall not exceed 7% opacity on an average of not less than five (5) six (6) minute block average basis. [06-096 CMR 115, BPT and/or 40 CFR 60, Subpart OOO]

Visible emissions from any other general process (non-NSPS crusher conveyor belts, bucket elevators, bagging operations, etc.) shall not exceed 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

F. Facility Emissions

Lane shall be restricted to the following annual emissions, based on a 12-month rolling total, and fuel limits of 40,000 gallons for the Diesel 3406B and Genset 3412 generators, and 40,000 gallons for the Diesel FT6203 and Diesel KLETKJAW generators.

Total Licensed Annual Emissions for the Facility
(Used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Generators	0.66	0.66	0.28	24.16	5.2	1.92
Total TPY	0.7	0.7	0.3	24.2	5.2	1.9

III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by-case basis. Modeling and monitoring are not required of a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>TPY</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the total facility licensed emissions, Lane is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-590-71-H-R, subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions. [06-096 CMR 115]
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. § 353. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- [06-096 CMR 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

(16) Rock Crushers

- A. Lane shall install and maintain spray nozzles for particulate control on all Rock Crushers and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six (6) minute block average basis. [06-096 CMR 115 (BPT) and 06-096 CMR 101]
- B. Lane shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [06-096 CMR 115, BPT]
- C. Lane shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the primary, secondary and tertiary rock crushers. The operation log shall be kept on-site at the rock crushing location. [06-096 CMR 115, BPT]
- D. Lane shall maintain a log detailing the maintenance on particulate matter control equipment (including spray nozzles). Lane shall perform monthly inspections of any water sprays to ensure water is flowing to the correct locations and initiate corrective action within 24 hours if water is found to not be flowing properly. Records of the date of each inspection and any corrective action required will be included in the maintenance log. The maintenance log shall be kept on-site at the rock crushing location. [06-096 CMR 115, BPT]
- E. Lane shall either have an initial performance test performed on the new rock crushers, PRIKLE TKJAW and TERSANH440, per the applicable sections of 40 CFR Part 60, Subpart OOO, §60.675 or provide documentation to the Department that the initial performance test was previously performed. (Documentation that a successful initial performance test was performed outside of Maine may be accepted.)
- F. An initial performance test must be completed within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup of the unit. If the initial performance test for a facility falls within a seasonal shutdown, then with approval from the Department, the initial performance test may be postponed until no later than 60 calendar days after resuming operation of the affected equipment.
- G. Lane shall conduct a performance test on each crusher at least once every five years.

- H. Lane shall submit a test notice to the regional inspector at least 7 days prior to a performance test.
- I. The crushers shall not be attached or clamped via cable, chain, turnbuckle, bolt, or other means (except electrical connections) to any anchor, slab, or structure (including bedrock) that must be removed prior to transportation. [06-096 CMR 115, BPT]

(17) New Source Performance Standards for Rock Crushers

The four rock crushers are subject to 40 CFR Part 60 Subparts A and OOO and Lane shall comply with the notification and record keeping requirements of 40 CFR Part 60.676 and Part 60.7, except for Section (a)(2) of 60.7 per Subpart OOO, §60.676(h).

(18) Diesel Generators

- A. Total fuel use for the Diesel 3406B and Genset 3412 generators shall not exceed 40,000 gallons per year of diesel oil with a maximum sulfur content not to exceed 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BPT]
- B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Genset 3406B	PM	0.12	06-096 CMR 103(2)(B)(1)(a)
Genset 3412	PM	0.12	06-096 CMR 103(2)(B)(1)(a)

- C. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Diesel 3406B	0.32	0.32	0.14	11.91	2.57	0.95
Genset 3412	0.64	0.64	0.27	17.02	4.52	0.53

- D. Visible emissions from each generator shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(19) **NSPS Generators**

- A. The Diesel FT6203 and the Diesel KLETKJAW Generators shall fire only diesel fuel with a maximum sulfur content not to exceed 0.05% (500 ppm). [40 CFR 60.4207(a)]
- B. Beginning October 1, 2010, The FT6203 and KLETKJAW generators shall fire only diesel fuel with a maximum sulfur content not to exceed 0.0015% (15 ppm). [40 CFR 60.4207(b)]
- C. Total fuel use for the FT6203 and the KLETKJAW generators shall not exceed 40,000 gallons per year of diesel fuel. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of fuel delivered. Records of annual fuel use shall be kept on a 12-month rolling total basis. [06-096 CMR 115, BACT]
- D. The generators shall be equipped with a non-resettable hour meter. [06-096 CMR 115, BACT]
- E. Emissions shall not exceed the following [06-096 CMR 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Diesel FT6203	0.15	0.15	0.06	5.38	1.16	0.43
Diesel KLETKJAW	0.25	0.25	0.11	9.26	2.00	0.74

- F. The FT6203 and KLETKJAW generators are subject to PM, CO, and NO_x + VOC emission requirements set forth in 40 CFR 60, Subpart IIII. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer that this engine class meets the appropriate Tier standards. [40 CFR 60, Subpart IIII]
- G. Lane shall operate and maintain the FT6203 and KLETKJAW generators in accordance with the manufacturer's written instructions. Lane shall not change settings that are not approved in writing by the manufacturer. [40 CFR 60.4211(a)]
- H. Visible emissions from each of the generators shall each not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

(20) **Stockpiles and Roadways**

Visible emissions from a fugitive emission source shall not exceed 20% opacity, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(21) General Process Sources

Visible emissions from any general process sources (including conveyor belts, transfer points, bucket elevators, bagging operations, etc.) associated with an NSPS crusher shall not exceed 7% opacity on an average of not less than five (5) six (6) minute block average basis. Compliance shall be determined using methods specified in 40 CFR 60, Subpart OOO. [06-096 CMR 115, BPT and/or 40 CFR 60, Subpart OOO]

Visible emissions from any other general process sources (including non-NSPS crusher conveyor belts, bucket elevators, bagging operations, etc.) shall not exceed an opacity of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 115, BPT]

(22) Equipment Relocation [06-096 CMR 115, BPT]

- A. Lane shall notify the Bureau of Air Quality, by a written notification at least 48 hours prior to relocation of any equipment carried on this license. Written notice may be sent by mail, facsimile (fax), or e-mail. Notification sent by mail shall be sent to the address below or to a Department Regional Office:

Attn: Relocation Notice
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Equipment relocation notification can also be done on-line with e-notice at www.maine.gov/dep/air/compliance/forms/relocation.

The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment.

- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.

(23) Lane shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [06-096 CMR 115, BPT]

The Lane Construction Corporation
Penobscot County
Hermon, Maine
A-590-71-H-R

Departmental
Findings of Fact and Order
Air Emission License

14

- (24) Lane shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard [38 M.R.S.A. §605-C].

DONE AND DATED IN AUGUSTA, MAINE THIS 21st DAY OF May, 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Brookhoff
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 01/20/2010

Date of application acceptance: 01/25/2010

Date filed with the Board of Environmental Protection: _____

This Order prepared by N. Lynn Cornfield, Bureau of Air Quality.

